

Work Order ID 69340

Monday, May 09, 2011 11:32:28 AM



Page 1

Item ID: D3294-1

Accept



Setup Start



Revision ID:

Stop



Item Name: Bracket

Start Date: 5/9/2011 Start Qty: 9.00



Cust Item ID:

Required Date: 5/13/2011 Req'd Qty: 9.00



Customer:

Reference:

Approvals:

Process Plan: *MF*

Date: *11-05-09*

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3294

Rev C

100

0.00



Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3294

Cut File D3294-3

Dwg Rev: *C*

Prog Rev: *C*

*grain direction on a 45 deg as per dwg**

2-Debur if necessary

B11-5-10

(10)

110

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

B11-5-10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

S 11/05/10

+10

130

0.00



Brake NC

Memo

0.00

Brake NC

1-Deburr if necessary
2-Bend as per Dwg D3294
(Ensure angle is correct)

SB 11/05/10

9

+10

PJO

140

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

S 11/05/10

+9

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3294-1 PAR #: H/A Fault Category: Engineering NCR: Yes No DQA: 11 Date: 11.05.17
 11-102 Resolution: Scrap Disposition: Scrap QA: N/C Closed: 11 Date: 11.05.18

NCR: <u>69340</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
11/05/10	130	1 piece crack at the bending I changed for a big bottom die <u>R.e process Test new die together</u>	<u>AS</u> <u>AS</u>	Scrap + destroy WO replace	<u>SB</u> <u>11/05/10</u>	<u>AS</u> <u>11.05.10</u>	<u>AS</u> <u>AS</u>	<u>AS</u> <u>11.05.10</u>

NOTE: Date & initial all entries

Work Order ID 69340

Monday, May 09, 2011 11:32:28 AM



Page 3

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Revision ID:

Stop



Item Name: Bracket

Start Date: 5/9/2011 Start Qty: 9.00



Cust Item ID:

Required Date: 5/13/2011 Req'd Qty: 9.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

9 11-5-12

160

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

4 11-5-12

170

0.00



Small Fab

Memo

0.00

Small Fab

1-Install D3294-5 doubler to D3294-3 bracket with rivets as per dwg. D3294

E 5/10/12 ⑨

W/O:		WORK ORDER CHANGES					
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Page 4

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Cust Item ID:

Required Date: 5/13/2011 Req'd Qty: 9.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

180

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8 11/05/13

29

190

Black Sandtex(Ref.4.3.5.7) per QSI005 4.3

0.00



Powdercoat

Powder Coating

Memo

Start Time:

Oven Temperature:

Finish Time:

0.00

10:15
320 OF
10:45

200

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

M115128

OK of M/L 11/05/13

11/5/13 of 92

W/O:		WORK ORDER CHANGES					
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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

210

Identify as per dwg & Stock Location 210

0.00



Packaging

Memo

0.00

Packaging

11/5/13

sf 90

220

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/5/14

U1105-13

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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NOTE: Date & initial all entries

Picklist Print

Monday, May 09, 2011 11:32:25 AM

Page 1

Work Order ID: 69340

Parent Item: D3294-1

Parent Item Name: Bracket



Start Date: 5/9/2011

Required Date: 5/13/2011

Start Qty: 9.00

Required Qty: 9.00

Comments: IPP ☐ A ☐ 04.08.24 ☐ New issue ☐ KJ/JLM ☐
 IPP Rev:B Now On Waterjet 07-03-26 JLM
 IPP Rev:C 08-07-16 Redesign part DD verified by:EC
 IPP Rev:D 08-10-06 revB as per dwg DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.080 2024-T3 .080 sheet		Purchased	No			100	sf	134.0000	1.8	17.05263	18.5		
											811-5-10		

Location	Loc Qty	Loc Code
MAT022	134	
105411	6	
109424	4	
110347	2	
110908	3	
112331	3	
113796	7	
114025	17.2	
116604	7.8	
117392	84	

D3294-5



Doubler

Manufactured No

170 Each 13.0000



Location	Loc Qty	Loc Code
GA	13	
55331	2	
68359	11	

9
 5/11/05/12
 2
 7

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

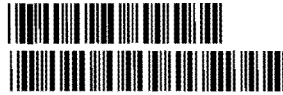
Monday, May 09, 2011 11:32:25 AM

Page 2

Work Order ID: 69340

Parent Item: D3294-1

Parent Item Name: Bracket



Start Date: 5/9/2011

Required Date: 5/13/2011

Start Qty: 9.00

Required Qty: 9.00

MS20470AD4-5

Purchased

No

170

Each

1,533.000

15

135



Rivet, Universal Head



Handwritten signature
5/11/05/12

Location

Loc Qty

Loc Code

ST319

1533

116410

14

116893

1519

Handwritten: 135

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	69340
Description: Bracket Assembly		Part Number:	D3294-1
Inspection Dwg: D3294	Rev: C	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.129	+0.005/-0.001	.130	✓		V B02	
Ø0.141	+0.005/-0.001	.141	✓		V	
6.708	+/-0.010	6.709	✓		V	
1.118	+/-0.010	1.120	✓		V	
5.590	+/-0.010	5.597	✓		V	
1.118	+/-0.010	1.120	✓		V	
13.563	+/-0.010	13.563	✓		T B01	
1.043	+/-0.010	1.045	✓		V	
0.625	+/-0.010	.626	✓		V	
0.325	+/-0.010	.325	✓		V	
0.300	+/-0.010	.301	✓		V	
0.400	+/-0.010	.400	✓		V	
6.000	+/-0.010	6.002	✓		V	
1.000	+/-0.010	1.001	✓		V	
17.124	+/-0.010	17.125	✓		T	
16.13	+/-0.030	16.13	✓		T	
7.27	+/-0.030	7.274	✓		V	
11.97	+/-0.030	11.97	✓		T	
8.37	+/-0.030	8.37	✓		T	
20.05	+/-0.030	20.05	✓		T	
12.98	+/-0.030	12.98	✓		T	
14.59	+/-0.030	14.59	✓		T	
11.66	+/-0.030	11.66	✓		T	
0.080	+/-0.010	.079	✓		V	

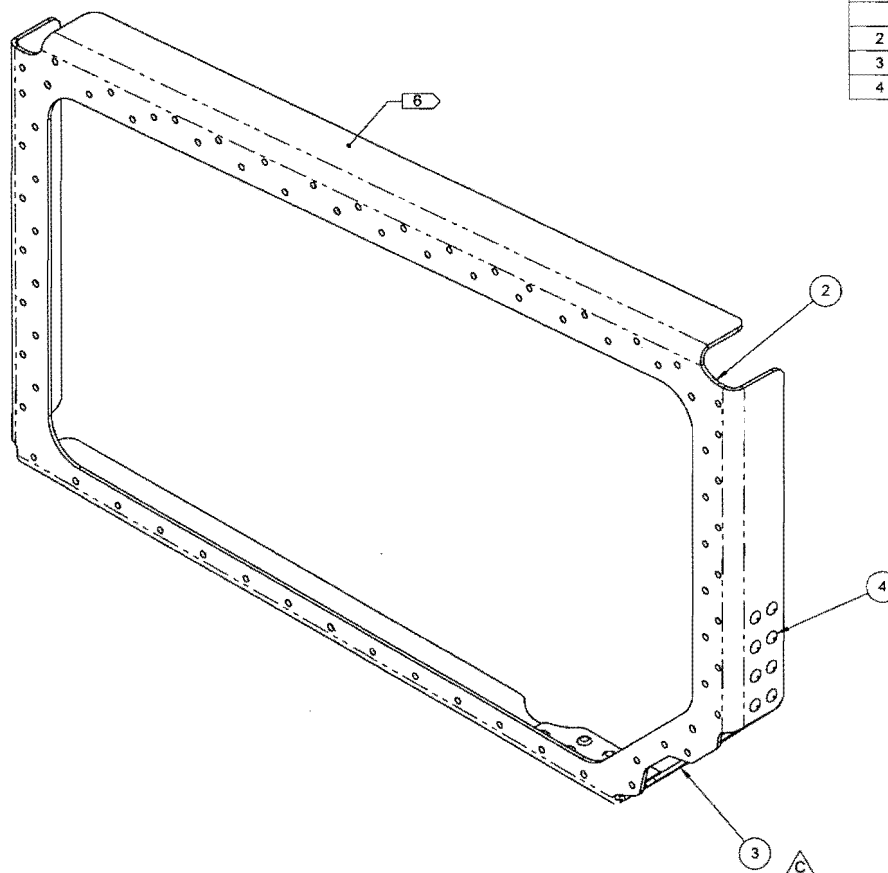
Measured by:	JB
Date:	11-5-10

Audited by:	JB
Date:	11/05/10

Prototype Approval:	N/A
Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.08.24	New Issue	KJ/JLM	
B	06.03.09	Dimension 12.97 was 13.03	KJ/JLM	
C	08.11.27	Dimensions updated per Dwg Rev B	KJ/EC	
D	09.07.29	Dimension 2.100 was 2.072	KJ	
E	09.09.14	Dimensions updated per Dwg Rev C	KJ	

ITEM NO.	QTY. -1	PART NUMBER	DESCRIPTION
1	X	D3294-1	BRACKET ASSEMBLY
2	1	D3294-3	BRACKET
3	1	D3294-5	DOUBLER
4	15	MS20470AD4-5	RIVET



D3294-1 BRACKET ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT "BLACK" (4.3.5.7) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3294-1 AND B/N" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.83 lbs

69346

RELEASED
09/07/07

C	REMOVE FLANGE PREVIOUSLY ADDED. ADD -5 DOUBLER ZN A4-1, SHEET 5+6.	HS	09.03.24
B	CHANGE FLANGE FROM OUTSIDE TO INSIDE, ZN B4-1, C3-2. CHANGE GRAIN DIRECTION, ZN C4-2	HS	08.09.22
A	NEW ISSUE	CP	04.06.28
REV.	DESCRIPTION	BY	DATE
DESIGN	HS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	HS		
CHECKED	HS	DRAWING NO.	REV. C
MFG. APPR.	HS	D3294	SHEET 1 OF 5
APPROVED	HS	TITLE	SCALE
DE APPR.	HS	BRACKET	NTS
DATE	09.03.24	<small>COPYRIGHT © 2004 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

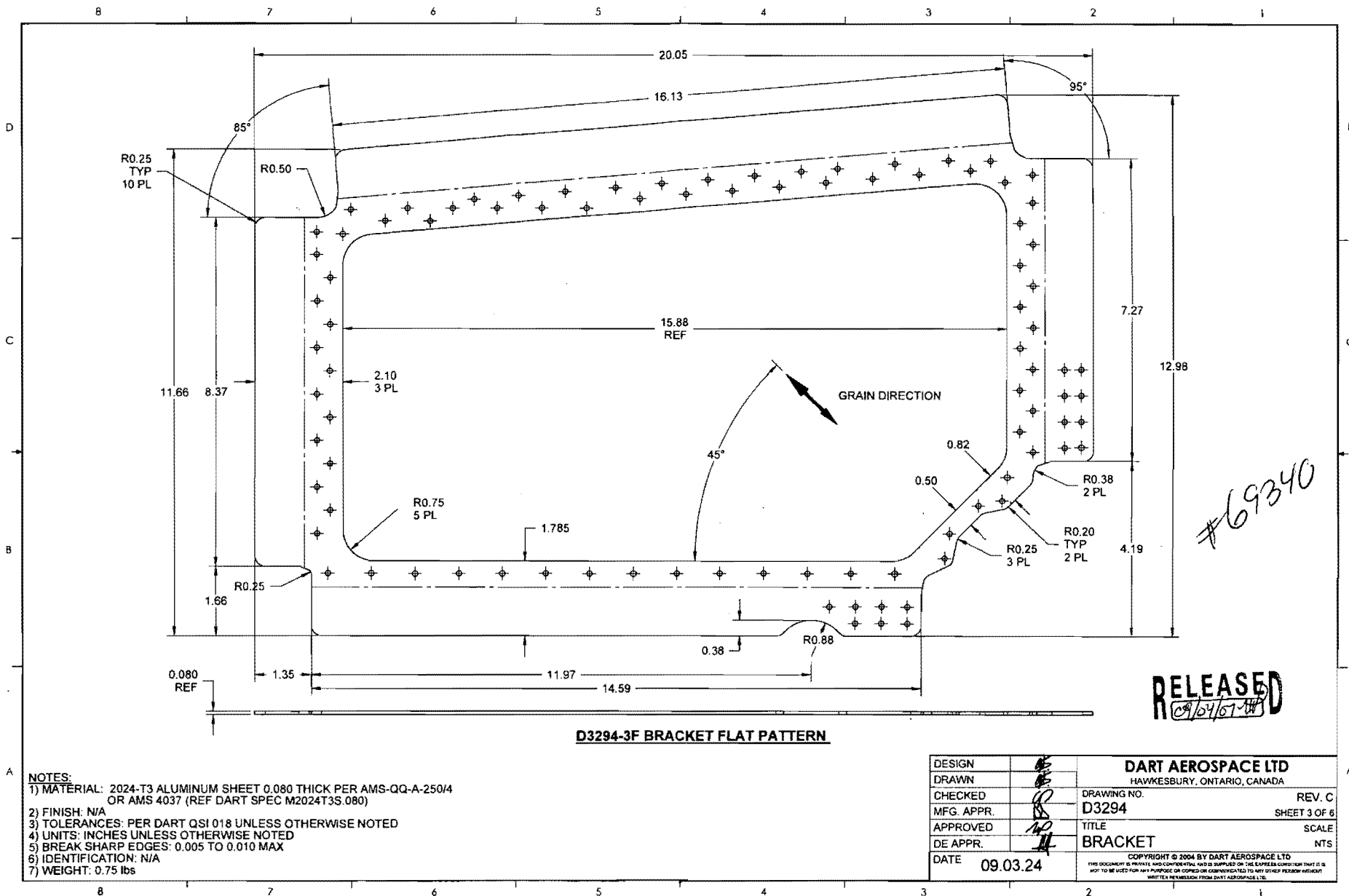
W/O:		WORK ORDER CHANGES					
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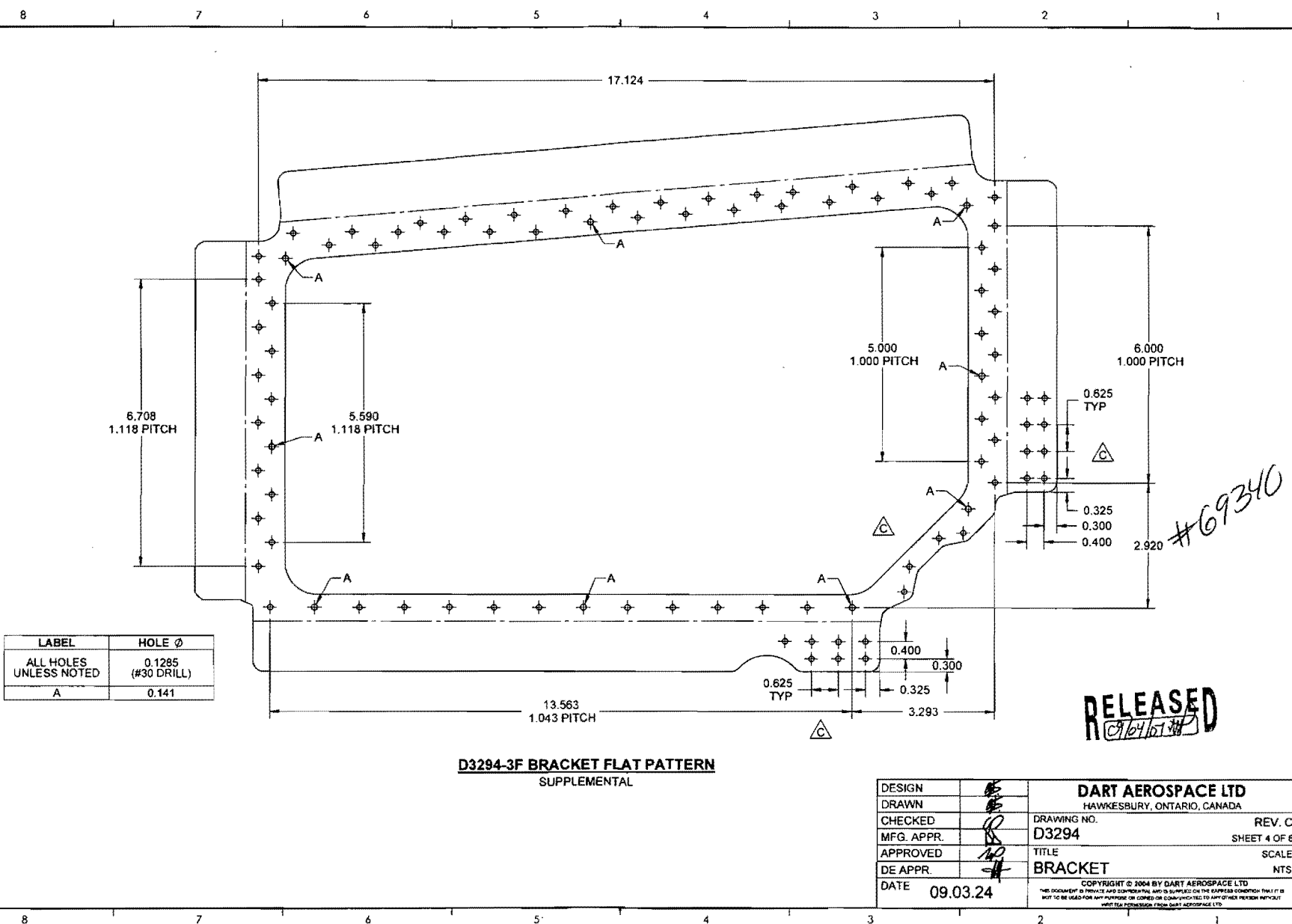
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NOTE: Date & initial all entries



D3294-3F BRACKET FLAT PATTERN
SUPPLEMENTAL

RELEASED
09/03/24

#69340

DESIGN	ES	DART AEROSPACE LTD	
DRAWN	ES	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ES	DRAWING NO.	REV. C
MFG. APPR.	ES	D3294	SHEET 4 OF 8
APPROVED	ES	TITLE	SCALE
DE APPR.	ES	BRACKET	NTS
DATE	09.03.24	COPYRIGHT © 2004 BY DART AEROSPACE LTD	
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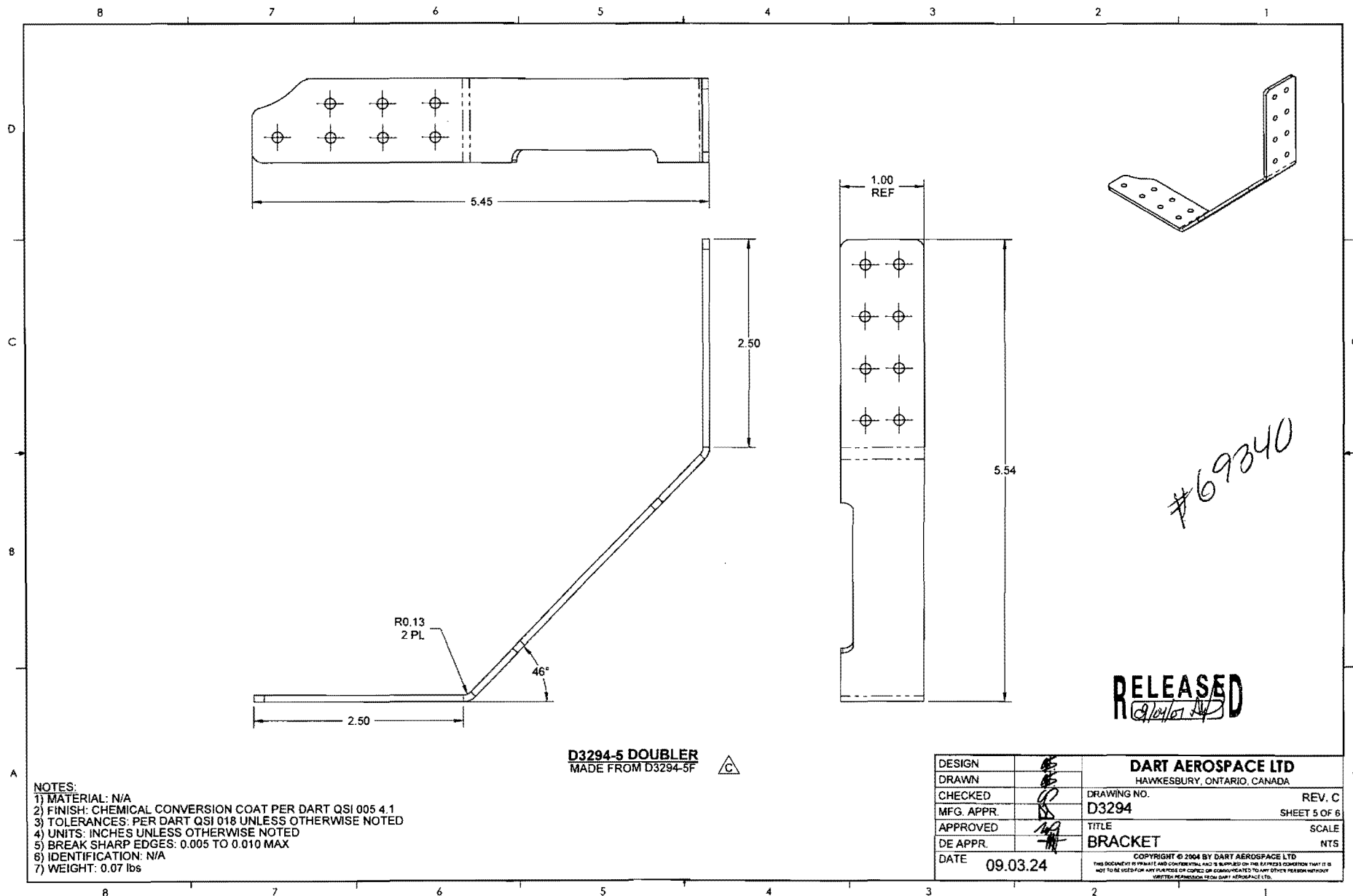
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NOTE: Date & initial all entries



Dart Aerospace Ltd

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8 7 6 5 4 3 2 1

D

D

C

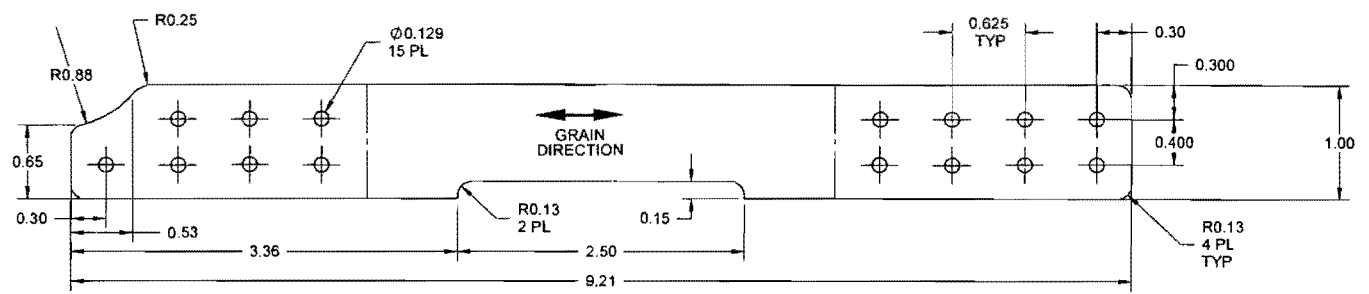
C

B

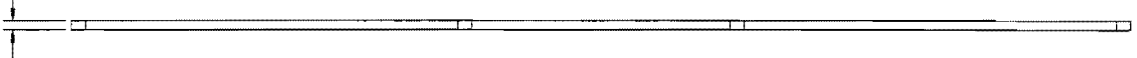
B

A

A



0.080
REF









#69340

D3294-5F DOUBLER FLAT PATTERN

RELEASED
09/04/07

NOTES:

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET 0.080 THICK PER AMS-QQ-A-250/4 OR AMS 4037 (REF DART SPEC M2024T3S.080)
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.07 lbs

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3294	SHEET 6 OF 6
APPROVED		TITLE	SCALE
DE APPR		BRACKET	NTS
DATE	09.03.24	COPYRIGHT © 2004 BY DART AEROSPACE LTD	
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8 7 6 5 4 3 2 1

W/O:		WORK ORDER CHANGES					
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